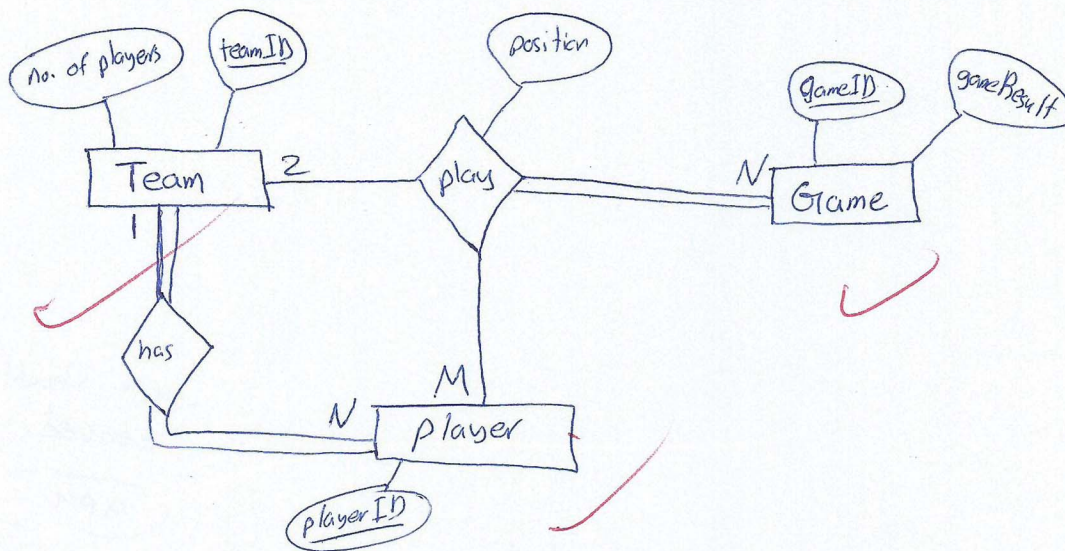


9/10

Q1. A database is being constructed to keep track of the teams and games of a football sports league. A team has a number of players, not all of whom participate in each game. It is desired to keep track of the players participating in each game for each team, the positions they played in that game, and the result of the game.

Design an ER diagram for this application, stating any assumptions you make.



OK

- exactly 2 teams play a game
- some players may not play
- a game must be played by teams and players
- team must have players
- players must play for exactly one team.

Q2. Make sure that the ER diagram is a correct representation of the Two Seas School requirements. If not then correct it.

Two Seas School of Bahrain and Howarian has decided to step into the modern world and has asked you to design its relational database. It has given the following list of basic conditions that are needed for its database.

- Professors have a Wizard ID which is a 10 digit number, a name, a rank, the number of years they have been in the school and their research specialty.
- Students have an Apprentice ID which is a 10 digit number, a name, the year of study and their gpa.
- Professors teach Courses which are offered by the school. A course has a course ID, a name and the number of credits. Every course is taught by at most one professor and a professor may teach many courses. Courses are taught in terms. The teacher of a course may vary for different terms.
- There are various houses to which students belong to. A student is a member of exactly one house.
- Houses are identified by their house ID and have a name and the number of students in the school who are currently a member of the house. In addition, every house has precisely one student who is the head of the house. Each house name is distinct.
- Students are also enrolled in courses. A student can enroll in many courses in a given term and a course contains many students. The grade of the student in the course that is offered in a term is also to be noted along with the enrollment information and is unique. A student may enroll in the same course in different terms.
- Every student has at most one professor who advises the student. A professor may advise MANY students.

